

# REPORT DOCUMENTATION PAGE

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6. AUTHORS  Kaspar J. Willam				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Department of Civil, Environmental, and Architectural Engineering University of Colorado Boulder Boulder CO 80309-0428			8. PERFORMING ORGANIZATION REPORT NUMBER	
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13. ABSTRACT (Maximum 200 words)  The 5-th US National Congress on Computational Mechanics was held on the campus of the University of Colorado, Boulder on August 4-7, 1999. The local organizers, which included Kaspar Willam and Stein Sture as co-chairs, and Aerospace Engineering Profs. Carlos Felippa, Charbel Farhat and K.C. Park, made a determined effort to involve engineers and scientists not only from academia and government research laboratories, but also from software houses and practicing engineering firms. Of the nearly 700 participant, over 130 were students, and 185 came from abroad. The large number of participants clearly demonstrated that the field of Computational Mechanics is still undergoing expansion, with activities ranging from computational mathematics and numerical solutions of large-scale physical problems, to innovative computer simulations in many engineering disciplines. Over 700 presentations were organized within 40 mini-symposia. One noteworthy symposium was entitled History of the Finite Element Method, which brought together pioneers of the early days of this very important technology.				
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Kaspar Willam  
Department of Civil, Environmental, and Architectural Engineering  
University of Colorado Boulder

FIFTH US NATIONAL CONGRESS ON  
COMPUTATIONAL MECHANICS  
University of Colorado Boulder, August 4-7, 1999

## Summary

The 5-th Congress of the U.S. Association for Computational Mechanics, USACM, was held on the Boulder Campus of the University of Colorado, August 4-6, 1999. It convened 566 regular participants and 134 students, including 186 participants from abroad. The Congress was followed by a Short Course on Saturday, August 7, 1999, which attracted 75 attendees. The large number of participants demonstrates that the field of Computational Mechanics is still experiencing substantial growth. It spans from computational mathematics and numerical solution of large-scale mathematical-physical problems, to innovative computer simulations in applied mechanics and computational engineering.

The main objective was to bring together the diverse computational communities, and to promote the interaction between computational researchers and software developers in universities and industries. The Local Organizing Committee, which included Profs. Stein Sture and Kaspar Willam as co-chairs, and Aerospace colleagues Profs. Carlos Felippa, Charbel Farhat and K.C. Park, made a determined effort to involve engineering scientists not only from academia and government research laboratories, but also from major software houses. One major change from previous Congresses was the reliance on Mini Symposia organized by scientists and practicing engineers. Part of this outreach was to include a substantial number of colleagues to get actively involved in the development of the Congress program. We were pleased that over 80 individuals volunteered their time and effort to organize 40 Mini Symposia which ranged from single six paper sessions to a nine session symposium with 49 papers in one case. Altogether, the Congress program featured 700 Invited and Contributed Papers on computational methodologies and applications which were organized in the format of 131 sessions during the three day Congress. The Book of Abstracts may be viewed on the congress web site <http://civil.colorado.edu/usnccm99/>. A copy of the Congress Program is enclosed.

One noteworthy Mini Symposium, entitled History of the Finite Element Method, was organized by K.C. Park and E.L. Wilson to bring together pioneers of the early days of that highly influential technology. Ray W. Clough, Richard MacNeal, and Ted Pian delivered Keynote Lectures. Alf

## FINAL TECHNICAL REPORT

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Samuelsson and Olek Ziekiewicz were not able to attend, but their papers were ably delivered by Paal Bergan, Kenneth Runesson, Roger Owen and Robert L. Taylor.

In addition to the intensive technical program the social activities were highlighted by the Congress Banquet on Thursday, August 5, 1999 held at the Glenn Miller Ballroom of the University of Colorado Boulder. At the end of the banquet the president of USACM, Mark Shephard, and the Chairman of the Award Committee, Ted Belytschko, presented the von Neumann Award to Robert L. Taylor of the University of California at Berkeley, who followed up the presentation with thoughtful remarks. Another special award was the new Richard Gallagher Medal sponsored by John Wiley & Sons, which was awarded to Leo Franca of the University of Colorado at Denver in a touching ceremony which started with torrential rains and ended on a high and emotional note.

The social activities were augmented on Friday evening by a barbecue at the CU Mountain Research Station at 10,500 ft attended by more than 200 people, and a hike to Pawnee Pass and Pawnee Peak which attracted 64 wanna-be mountaineers on Saturday. Both events benefited from glorious weather.

Boulder February 15, 2000.